

Enclosure Five

Fish and Wildlife

Identified Issues:

Human activities in the basin have influenced and changed aquatic and terrestrial habitats. Significant factors contributing to the changes in aquatic habitat are reservoir construction, hydropower generation and pollution. Agriculture, silviculture and urban land use has resulted in changes to the terrestrial habitat in the basin.

Of critical concern is the effect of flow releases during droughts on the habitat in the Savannah River estuary (in the lower basin area). Estuarine wetlands are highly productive natural systems which provide spawning, nursery and feeding habitat for commercial and sport fish and also provide important habitat for other wildlife. Low flows entering the harbor area directly affect the amount of saltwater that proceeds upstream. As the salinity increases in the estuary, the more likely that plants and animals will be negatively impacted.

Extensive water quality studies have been performed on the lakes in the upper basin area and contaminants are known, however there is speculation that contaminants entering the lakes from the tributaries are also causing degradation.

Economic growth and expansion in the area are attracting contractors and developers to the lake areas. Such waves of development will inevitably diminish wildlife habitat. Often the impacts of community growth and development on habitat loss are not given sufficient consideration.

Wetland impacts have occurred to the lower Savannah floodplain areas due to alteration of the once natural flow régime by regulation of flow from several impoundments. Studies are needed to identify the nature of impacts and if the reservoirs can be used to alter flows to simulate flushing events

Alternative Plans and Evaluations: Feasibility studies corresponding to the development of land around the lakes involves assessing the land holdings at the lakes and reservoirs for current and future value for wildlife habitat.

Suggested feasibility studies relating to poor land use practices which impact habitat are, conducting Indexes of Biological Indicators (IBI) and also evaluating land use changes along Savannah River tributaries.

There has been very limited research conducted on the lower basin area as it relates to fishery habitats. Most of the interest in feasibility studies relates to Instream Flow Incremental Methodology (IFIM) covering specific stretches of the river. There is interest in determining the magnitudes of flows most beneficial to fish swimming upstream from the New Savannah Bluff Lock and Dam (NSBL&D) and successfully spawning. Another lower basin study was suggested that would investigate the level of flow that would be advantageous to fish nurseries out of the channel as well as in the channel.

Striped bass have been extensively studied in the Savannah Harbor area, but there is interest in studying the population that is located between the harbor and the NSBL&D to determine if there is successful spawning and the ideal flow requirement.

Feasibility studies are warranted to analyze scheduled releases from the reservoirs in the context that they can be used to simulate natural flushing events and prevent the intrusion of saltwater.